

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A transportation service system comprising:

at least one Global Positioning System (GPS) satellite for transmitting information used to detect a position of a object;

at least one vehicle having a GPS terminal configured to receive said information from said GPS satellite, to detect a present location of said at least one vehicle on the basis of said information and to transmit present-location information regarding said detected present location and destination information indicating a destination specified by a customer; and

a center equipment configured to receive said present-location information and destination information, to find an optimal route to obtain optimal-route information in accordance with said present-location information and destination information, and to transmit information including, said optimal-route information, to said at least one vehicle.

2. (previously presented): The transportation service system according to claim 1, wherein said center equipment is configured to calculate, in accordance with said present-location information and said destination information, a charge for said optimal route to obtain

charge information and to transmit information, including said charge information, to said at least one vehicle.

3. (previously presented): The transportation service system according to claim 2, wherein said center equipment is configured to calculate, in accordance with said present-location information and destination information, a distance from said present location to said destination associated with said optimal route to obtain distance information, and to transmit information, including said distance information, to said at least one vehicle.

4. (previously presented): The transportation service system according to claim 3, wherein said center equipment is configured to calculate, in accordance with said present-location information and destination information, a required driving time associated with said optimal route to obtain driving time information, and to transmit information, including said driving time information, to said at least one vehicle.

5. (previously presented): The transportation service system according to claim 4, wherein, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle,

said at least one vehicle is configured to detect by said GPS terminal new present-location information at the time of said change, and to transmit to said center equipment said detected new present-location information and new destination information indicating said new destination, and

said center equipment is configured to find, in accordance with said new present-location information and new destination information, a new optimal route to obtain new optimal-route information, and to transmit information, including said new optimal-route information, to said at least one vehicle.

6. (previously presented): The transportation service system according to claim 5, wherein said center equipment calculates, in accordance with said new present-location information and new destination information, a charge for said new optimal route to obtain charge information, and to transmit information including said charge information to said at least one vehicle.

7. (previously presented): The transportation service system according to claim 6, wherein said center equipment calculates, in accordance with said new present-location information and new destination information, a distance from said new present location to said new destination designated by said new optimal route to obtain distance information, and to transmit information, including said distance information, to said at least one vehicle.

8. (previously presented): The transportation service system according to claim 7, wherein said center equipment calculates, in accordance with said new present-location information and new destination information, a required driving time required by said at least one vehicle, which is associated with said new optimal route, to obtain driving-time information, and to transmit information, including said driving-time information, to said at least one vehicle.

9. (previously presented): A transportation service system, comprising:

at least one global positioning system (GPS) satellite for transmitting information used to detect a position of an object;

at least one vehicle having a GPS terminal configured to receive said information from said GPS satellite, to detect a present location of said at least one vehicle on the basis of said information, and to transmit present-location information regarding said detected present location and destination information indicating a destination specified by a customer; and

a center equipment configured to receiving said present-location information and destination information, to find respective optimal routes for each of a plurality of different criteria to obtain optimal-route information in accordance with said present-location information and destination information, and to transmit information, including said optimal-route information, to said at least one vehicle.

10. (previously presented): The transportation service system according to claim 9, wherein said center equipment is configured to calculate, in accordance with said present-location information and destination information, a charge for each of said optimal routes to obtain charge information, and to transmit information, including said charge information, to said at least one vehicle.

11. (previously presented): The transportation service system according to claim 10, wherein said center equipment is configured to calculate, in accordance with said present-

location information and destination information, a distance from said present location to said destination associated with each of said optimal routes to obtain distance information, and to transmit information, including said distance information, to said at least one vehicle.

12. (previously presented): The transportation service system according to claim 11, wherein said center equipment is configured to calculate, in accordance with said present-location information and destination information, a required driving time associated with each of said optimal routes to obtain driving time information, and to transmit information, including said driving time information, to said at least one vehicle.

13. (previously presented): The transportation service system according to claim 12, wherein, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle,

said GPS terminal is configured to detect new present-location information at the time of said change, and to transmit to said center equipment said detected new present-location information and new destination information indicating said new destination, and

said center equipment is configured to find, in accordance with said new present-location information and new destination information, respective new optimal routes for each of said plurality of different criteria to obtain new items of optimal-route information, and to transmit information, including each of said new items of optimal-route information, to said at least one vehicle.

14. (previously presented): The transportation service system according to claim 13, wherein said center equipment is configured to calculate, in accordance with said new present-location information and new destination information, a charge for each of said respective new optimal routes to obtain charge information, and to transmit information, including said charge information, to said at least one vehicle.

15. (previously presented): The transportation service system according to claim 14, wherein said center equipment is configured to calculate, in accordance with said new present-location information and new destination information, a distance from said new present location to said new destination associated with each of said respective new optimal routes to obtain distance information, and to transmit information, including said distance information, to said at least one vehicle.

16. (previously presented): The transportation service system according to claim 15, wherein said center equipment is configured to calculate, in accordance with said new present-location information and new destination information, a required driving time required by said at least one vehicle, which is associated with each of said respective new optimal routes, to obtain driving-time information, and to transmit information, including said driving-time information, to said at least one vehicle.

17. (previously presented): The transportation service system according to claim 16, wherein said plurality of different criteria include charges for said respective optimal routes, a

distance from said present location to said destination associated with said respective optimal routes, and a required driving time required by said at least one vehicle associated with said respective optimal routes.

18. (currently amended): ~~A~~The transportation service system according to claim 4, wherein said center equipment comprises:

a server configured to communicate information with said at least one vehicle and to execute predetermined processing; and

Intelligent Transportation System (ITS) information receiving means connected to said server for receiving ITS information offered by said ITS,

said server comprising;

first communication control means for communicating information with each of said at least one vehicle;

first map-information storage means for storing map information for each area;

preset-charge storage means for storing service-charge information associated with at least one vehicle company; and

first control means connected to each of said first communication control means, said first map-information storage means, and said preset-charge storage means, for controlling each of said means,

wherein said first control means is operable to read from said first map-information storage means map information corresponding to said destination information and said present-location information received by said first communication control means, obtain said ITS

information from said ITS information receiving means, read said service-charge information from said preset-charge storage means, and calculate in accordance with said map information, with said ITS information, and with said service-charge information, said optimal route, a distance from said present location to said destination associated with said optimal route, a required driving time associated with said optimal route, and a charge for said optimal route.

19. (previously presented): The transportation service system according to claim 18, wherein, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle,

said at least one vehicle is configured to transmit to said center equipment present-location information at the time of said change as new present-location information, and destination information indicating said new destination, and;

said first communication control means is operable to receive said new present-location information and new destination information, and said first control means is operable to obtain new ITS information from said ITS information receiving means, read from said first map-information storage means new map information corresponding to said new present-location information and said new destination information, and find according to said new ITS information, to said new map information, and to said new service-charge information, a new optimal route, a distance from said new present location to said new destination designated by said new optimal route, a required driving time required by said at least one vehicle associated with said new optimal route, and a charge for said new optimal route.

20. (previously presented): The transportation service system according to claim 12, wherein said center equipment comprises:

a server configured to communicate information with said at least one vehicle and to execute a predetermined processing; and

Intelligent Transportation System (ITS) information receiving means connected to said server configured to receive ITS information offered by said ITS;

said server having:

first communication control means for communicating information with each of said at least one vehicle;

first map-information storage means for storing map information for each area;

preset-charge storage means for storing service-charge information associated with a transportation company; and

first control means connected to each of said first communication control means, first map-information storage means, and preset-charge storage means, for controlling each of said first communication control means, first map-information storage means, and preset-charge storage means,

wherein said first control means is operable to read from said first map-information storage means map information corresponding to said destination information and said present-location information received by said first communication control means, obtain said ITS information from said ITS information receiving means, reads said service-charge information from said preset-charge storage means, and calculate for each of said plurality of different criteria, in accordance with said map information, with said ITS information, and with said

service-charge information, said respective optimal routes, a distance from said present location to said destination associated with said respective optimal routes, a required driving time associated with said respective optimal routes, and charges for said respective optimal routes.

21. (previously presented): The transportation service system according to claim 20, wherein, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle,

said at least one vehicle is configured to transmit to said center equipment present-location information at the time of said change as new present-location information and destination information indicating said new destination,

in said center equipment;

said first communication control means is configured to receive said new present-location information and new destination information, and

said first control means is configured to obtain new ITS information from said ITS information receiving means, to read from said first map-information storage means new map information corresponding to said new present-location information and said new destination information, and to find for each of said plurality of different items, according to said new ITS information, to said new map information, and to said new service-charge information, new respective optimal routes, a distance from said new present location to said new destination designated by said new respective optimal routes, a required driving time required by said at least one vehicle associated with said new respective optimal routes, and charges for said new respective optimal routes.

22. (previously presented): The transportation service system according to claim 4, wherein said center equipment comprises:

a server configured to communicate information with said at least one vehicle and executing a predetermined processing; and

Intelligent Transportation System (ITS) information receiving means connected to said server, for receiving ITS information offered by said ITS,

said server comprising:

first communication control means for communicating information with each of said at least one at least one vehicle;

first map-information storage means for storing map information for each area;

preset-charge storage means for storing service-charge information associated with a at least one vehicle company; and

first control means connected to each of said first communication control means, first map-information storage means, and preset-charge storage means, for controlling each of said first communication control means, first map-information storage means, and preset-charge storage means,

wherein said first control means is operable to read from said first map-information storage means map information corresponding to said destination information and said present-location information received by said first communication control means, obtain said ITS information from said ITS information receiving means, read said service-charge information from said preset-charge storage means, find according to said map information a plurality of

routes connecting said present location and destination, calculate according to said ITS information a required driving time for each of said plurality of routes to determine that a shortest-time route among said plurality of routes having the shortest required driving time is said optimal route, calculate according to said map information a distance from said present location to said destination associated with said shortest-time route, calculate a charge for said shortest-time route according to said service-charge information, generate information including shortest-time route information indicative of said shortest-time route, distance information indicative of said distance, and charge information indicative of said charge, and transmit said generated information via said first communication control means to said at least one vehicle, by adding address information of a portable telephone terminal to said generated information.

23. (previously presented): The transportation service system according to claim 22, wherein, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle,

said at least one vehicle is configured to transmit to said center equipment present-location information at the time of said change as new present-location information, and destination information indicating said new destination, in said center equipment;

said first communication control means is operable to receive said new present-location information and new destination information, and send said received information to said first control means, and said first control means is operable to obtain new ITS information from said ITS information receiving means, read from said first map-information storage means new map information corresponding to said new present-location information and said new destination

information, find according to said new map information a plurality of routes connecting said new present location and new destination, calculate according to said ITS information a required driving time for each of said new plurality of routes to determine that a new shortest-time route among said new plurality of routes having the shortest required driving time is said optimal route, calculates according to said new map information a distance associated with said shortest-time route, calculate a charge for said new shortest-time route according to said service-charge information, generate information including new shortest-time route information indicative of said new shortest-time route, new distance information indicative of said distance, and new charge information indicative of said charge, and transmits said generated information via said first communication control means to said at least one vehicle, by adding address information of said portable telephone terminal to said generated information.

24. (previously presented): The transportation service system according to claim 12, wherein said center equipment comprises:

a server configured to communicate information with said at least one vehicle and to execute a predetermined processing; and

Intelligent Transportation System (ITS) information receiving means connected to said server configured to receive ITS information offered by said ITS,

said server comprising:

first communication control means for communicating information with each of said at least one vehicle;

first map-information storage means for storing map information for each area;

preset-charge storage means for storing service-charge information associated with a transportation company; and

first control means connected to each of said first communication control means, first map-information storage means, and preset-charge storage means, for controlling each of said first communication control means, first map-information storage means, and preset-charge storage means,

wherein said first control means is operable to read from said first map-information storage means map information corresponding to said destination information and said present location information received by said first communication control means, obtain said ITS information from said ITS information receiving means, read said service-charge information from said preset-charge storage means, finds according to said map information a plurality of routes connecting said present location and destination, calculate according to said map information a distance from said present location to said destination associated with each of said plurality of routes to determine that a shortest-distance route among said plurality of routes is an optimal route having the shortest distance, calculate according to said ITS information a required driving time for each said plurality of routes to determine that a shortest-time route among said plurality of routes is an optimal route having the shortest required driving time, calculate according to said service-charge information a charge for each of said plurality of routes to determine that a lowest-charge route among said plurality of routes is an optimal route, generate information including information indicating said shortest-distance route and its associated distance, information indicating said shortest-time route and its associated time, and information indicating said lowest-charge route and its associated charge, and transmits said generated

information via said first communication control means to said at least one vehicle by adding address information of a portable telephone terminal to said generated information.

25. (previously presented): The transportation service system according to claim 24, wherein, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle,

said at least one vehicle is configured to transmit to said center equipment present-location information at the time of said change as new present-location information and destination information indicating said new destination,

said first communication control means is configured to receives said new present-location information and new destination information, and to send said received information to said first control means, and

said first control means is configured to
obtain new ITS information from said ITS information receiving means,
read from said first map-information storage means new map information corresponding to said new present-location information and said new destination information,

read said service-charge information from said preset-charge storage means,
find according to said new map information a plurality of routes connecting said new present location and new destination,

calculate according to said ITS information a required driving time for each of said new plurality of routes to determine that a shortest-time route among said new plurality of routes having the shortest required driving time is said optimal route,

calculate according to said new map information a distance from said new present location to said new destination associated with said new plurality of routes to determine that a shortest-distance route among said plurality of routes is one of said optimal routes having the shortest distance,

calculate according to said service-charge information a charge for each of said plurality of routes to determine that a lowest-charge route among said plurality of routes is one of said optimal routes having the lowest charge,

generate information including shortest-time route information indicative of said shortest-time route, shortest-distance route information indicative of said shortest-distance route, and lowest-charge route information indicative of said lowest-charge route, and

transmit said generated information via said first communication control means to said at least one vehicle by adding address information of said portable telephone terminal to said generated information.

26. (previously presented): The transportation service system according to claim 23, wherein, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle,

said first control means is configured to calculate a first charge for a route from said new present location to said destination according to said map information, said ITS information, and said service-charge information, to calculate a second charge for a route from said new present location to said new destination according to said new map information, to said new ITS

information, and to said service-charge information, to subtracts said second charge from said first charge, to add said second charge to said subtraction result to calculate said new charge.

27. (currently amended): TheA transportation service system according to claim 26, wherein said first control means calculates a balance between said first charge and said new charge, and transmits to said at least one vehicle information on said balance together with information regarding said first charge via said first communication control means.

28. (previously presented): The transportation service system according to claim 25, wherein, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle, said first control means calculates a first charge for a route from said new present location to said destination according to said map information, said ITS information, and said service-charge information, calculates a second charge for a route from said new present location to said new destination according to said new map information, to said new ITS information, and to said service-charge information, subtracts said second charge from said first charge, and adds said second charge to said subtraction result to calculate said new charge.

29. (previously presented): The transportation service system according to claim 28, wherein said first control means calculates a balance between said first charge and said new charge, and transmits to said at least one vehicle information on said balance together with information regarding said first charge via said first communication control means.

30. (previously presented): The transportation service system according to claim 22, wherein said at least one vehicle has said GPS terminal and second communication control means connected to said GPS terminal, for communicating information with said center equipment, said GPS terminal comprising;

input means for inputting a destination specified by the customer,

second map-information storage means for storing map information for each area,

image display means for displaying an image, and

second control means connected to said input means, second map-information storage means, and image display means, for controlling each of said means,

said second control means detecting said present-location information from radio waves received from said GPS satellite, and sending to said first communication control means said present-location information and destination information indicative of said destination inputted from said input means,

said second communication control means sending to said center equipment said present-location information and said destination information received from said second control means, and sending to said second control means information received from said center equipment, and

said second control means reading from said second map-information storage means map information corresponding to said optimal route included in information received from said second communication control means, displaying on said image display means said optimal route by superposing the route on said map information, and displaying a distance from said present location to said destination associated with said optimal route included in said

information transmitted from said center equipment, a required driving time associated with said optimal route, and a charge for said optimal route.

31. (previously presented): The transportation service system according to claim 24, wherein said at least one vehicle has said GPS terminal and second communication control means connected to said GPS terminal configured to communicate information with said center equipment, said GPS terminal comprising;

input means for inputting a destination specified by the customer,

second map-information storage means for storing map information for each area,

image display means for displaying an image, and

second control means connected to said input means, second map-information storage means, and image display means, for controlling each of said means,

wherein said second control means is configured to detect said present-location information from radio waves received from said GPS satellite, and to send to said first communication control means said present-location information and destination information indicative of said destination inputted from said input means,

said second communication control means is configured to send to said center equipment said present-location information and said destination information received from said second control means, and to send to said second control means information received from said center equipment, and

said second control means is configured to read from said second map-information storage means map information corresponding to said respective optimal routes for each of said

plurality of different criteria included in information received from said second communication control means, to display on said image display means said respective optimal routes by superposing the route on said map information, and to display a distance from said present location to said destination associated with said respective optimal routes included in said information transmitted from said center equipment, a required driving time associated with said respective optimal routes, and charges for said respective optimal routes.

32. (previously presented): The transportation service system according to claim 30, wherein in said at least one vehicle, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle, said second communication control means is configured to receive new information sent from said center equipment,

said second control means is configured to read from said second map-information storage means new map information corresponding to said new optimal route included in said new information, and

said image display means is configured to display said new map information on which said new optimal route is superposed, and a distance from said new present location to said new destination associated with said new optimal route included in said new information, a required driving time associated with said new optimal route, and a charge for said new optimal route.

33. (previously presented): The transportation service system according to claim 31, wherein in said at least one vehicle, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle,

said second communication control means is configured to receive new information sent from said center equipment,

said second control means is configured to read from said second map-information storage means new map information corresponding to said respective new optimal routes for each of said plurality of different criteria included in said new information, and

said image display means is configured to display said new map information on which said respective new optimal routes are superposed, and to display a distance from said new present location to said new destination associated with said respective new optimal routes included in said new information, a required driving time associated with said respective new optimal routes, and charges for said respective new optimal routes.

34. (currently amended): The transportation service system according to claim 32, wherein said center equipment is configured to administers information obtained for said optimal route for every vehicle.

35. (previously presented): The transportation service system according to claim 33, wherein said center equipment is configured to administer information obtained for said new optimal route for every vehicle.

36. (previously presented): The transportation service system according to claim 32, wherein, for every vehicle, said center equipment is configured to administer said information

obtained with respect to said respective optimal routes, which has been obtained for an optimal route selected by the customer from among said optimal routes.

37. (previously presented): The transportation service system according to claim 33, wherein, for every vehicle, said center equipment is configured to administer said information obtained with respect to said respective new optimal routes, which has been obtained for an optimal route selected by the customer from among said new optimal routes.

38. (currently amended): A method of providing a transportation service in a system which comprises at least one Global Positioning System (GPS) satellite, a GPS terminal, a center equipment, and at least one vehicle on which said GPS terminal is mounted, said method comprising the steps of:

detecting by said GPS terminal its present location according to information for finding a position of a moving object transmitted from said GPS satellite;

transmitting from said at least one vehicle present-location information on said present location, and destination information indicating a destination specified by a customer; and

receiving by said center equipment said present-location information and said destination information,

obtaining optimal-route information on an optimal route according to said present-location information and destination information, and

transmitting information including said optimal-route information to said at least one vehicle.

39. (previously presented): The method of providing a transportation service according to claim 38, further including a step of calculating by said center equipment charge information on a charge for said optimal route according to said present-location information and destination information, and transmitting information including said charge information to said at least one vehicle.

40. (previously presented): The method of providing a transportation service according to claim 39, further including a step of paying by the customer a charge indicated by said charge information, before a transportation service is provided by said at least one vehicle.

41. (previously presented): The method of providing a transportation service according to claim 40, further including a step of obtaining by said center equipment distance information regarding a distance from said present location to said destination associated with said optimal route according to said present-location information and destination information, and transmitting said information including said distance information to said at least one vehicle.

42. (previously presented): The method of providing a transportation service according to claim 41, further including a step of obtaining by said center equipment driving-time information on a required driving time associated with said optimal route according to said present-location information and destination information, and transmitting information including said driving-time information to said at least one vehicle.

43. (previously presented): The method of providing a transportation service according to claim 42, wherein, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle, said at least one vehicle obtains by using said GPS terminal present-location information on a present location at the time of said change, and transmits to said center equipment said present-location information and destination information indicating said new destination, and wherein said center equipment obtains optimal-route information regarding a new optimal route according to said new present-location information and said new destination information, and transmits information including said optimal-route information to said at least one vehicle.

44. (previously presented): The method of providing a transportation service according to claim 43, said center equipment further obtains new charge information on a charge for said new optimal route according to said new present-location information and new destination information, and transmits said information including said new charge information to said at least one vehicle.

45. (previously presented): The method of providing a transportation service according to claim 44, the customer pays for a charge indicated by said new charge information, before said at least one vehicle provides a transportation service associated with said new destination.

46. (previously presented): The method of providing a transportation service according to claim 45, said center equipment further obtains distance information on a distance from said new present location to said new destination associated with said new optimal route according to said new present-location information and new destination information, and transmits said information including said distance information to said at least one vehicle.

47. (previously presented): The method of providing a transportation service according to claim 46, said center equipment further obtains driving-time information on a required driving time associated with said new optimal route according to said new present-location information and new destination information, and transmits said information including said driving-time information to said at least one vehicle.

48. (currently amended): ~~A~~The method of providing a transportation service in a system which comprises at least one Global Positioning System (GPS) satellite, a GPS terminal, a center equipment, and at least one vehicle on which said GPS terminal is mounted, said method comprising ~~the steps of~~:

detecting by said GPS terminal its present location according to information for finding a position of a moving object transmitted from said GPS satellite;

transmitting from said at least one vehicle present-location information on said present location, and destination information indicating a destination specified by a customer; and

receiving by said center equipment said present-location information and said destination information, finding as information respective optimal routes for each of plurality of different

criteria according to said present-location information and destination information, and transmitting information including said optimal-route information to said at least one vehicle.

49. (previously presented): The method of providing a transportation service according to claim 48, further including a step of calculating by said center equipment charge information on charges for said respective optimal routes according to said present-location information and destination information, and transmitting information including said charge information to said at least one vehicle.

50. (previously presented): The method of providing a transportation service according to claim 49, further including a step of selecting by the customer one of optimal routes before a transportation service is provided by said at least one vehicle, and paying a charge indicated by said charge information on said selected optimal route.

51. (previously presented): The method of providing a transportation service according to claim 50, further including a step of obtaining by said center equipment distance information regarding a distance from said present location to said destination associated with said respective optimal routes according to said present-location information and destination information, and transmitting said information including said distance information to said at least one vehicle.

52. (previously presented): The method of providing a transportation service according to claim 51, further including a step of obtaining by said center equipment driving-time

information on a required driving time associated with said respective optimal routes according to said present-location information and destination information, and transmitting information including said driving-time information to said at least one vehicle.

53. (previously presented): The method of providing a transportation service according to claim 52, wherein, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle, said at least one vehicle obtains by using said GPS terminal present-location information on a present location at the time of said change, and transmits to said center equipment said present-location information and destination information indicating said new destination, and wherein said center equipment finds respective new optimal routes for each of said plurality of different criteria according to said new present-location information and said new destination information to obtain optimal-route information regarding a new optimal route, and transmits information including said optimal-route information to said at least one vehicle.

54. (previously presented): The method of providing a transportation service according to claim 53, said center equipment further obtains new charge information on charges for said respective new optimal routes according to said new present-location information and new destination information, and transmits said information including said new charge information to said at least one vehicle.

55. (previously presented): The method of providing a transportation service according to claim 54, the customer selects an optimal route from among said respective new optimal routes before said at least one vehicle provides a transportation service associated with said new destination, and pays for a charge indicated by charge information on said selected optimal route.

56. (previously presented): The method of providing a transportation service according to claim 55, said center equipment further obtains distance information on a distance from said new present location to said new destination associated with said respective new optimal routes according to said new present-location information and new destination information, and transmits said information including said distance information to said at least one vehicle.

57. (previously presented): The method of providing a transportation service according to claim 56, said center equipment further obtains driving-time information on a required driving time associated with said respective new optimal routes according to said new present-location information and new destination information, and transmits said information including said driving-time information to said at least one vehicle.

58. (previously presented): The method of providing a transportation service according to claim 57, wherein said plurality of different criteria include charges for said respective optimal routes, a distance from said present location to said destination associated with said respective optimal routes, and a required driving time required by said at least one vehicle associated with said respective optimal routes.

59. (currently amended): A method of providing a transportation service in a system which comprises at least one Global Positioning System (GPS) satellite, a GPS terminal, a portable telephone terminal, a center equipment, and at least one vehicle on which said GPS terminal and portable telephone terminal are mounted, said center equipment having a communication controller, a controller, a map-information storage unit, a preset-charge information storage unit, and an ITS information receiver, said method comprising the steps of:

detecting by said GPS terminal its present location according to information for finding a position of a moving object transmitted from said GPS satellite;

transmitting from said portable telephone terminal present-location information on said present location and destination information indicating a destination specified by a customer of said at least one vehicle;

receiving by said communication controller said present-location information and destination information, and reading from said map-information storage unit, under the control of said controller, map information corresponding to said present-location information and destination information;

finding by said controller according to said read map information, a plurality of routes connecting said present location and destination;

receiving by said ITS information receiver ITS information provided by the ITS, and acquiring said ITS information by said controller;

calculating by said controller according to said acquired ITS information a required driving time for each of said plurality of routes;

determining by said controller an optimal route from said plurality of routes, which is a shortest-time route having a shortest required driving time;

calculating by said controller according to said map information a distance between said present location and destination associated with said shortest-time route;

reading from said preset-charge information storage unit under the control of said controller, service-charge information associated with a transportation company;

calculating by said controller according to said read service-charge information, a charge for said shortest-time route; and

generating by said controller information including shortest-time route information indicative of said shortest-time route, distance information indicative of said distance, and charge information indicative of said charge, and transmitting said information from said communication controller to said at least one vehicle by adding address information of said portable telephone terminal to said generated information.

60. (currently amended): TheA method of providing a transportation service according to claim 59, wherein said customer pays for a charge indicated by said charge information, before a transportation service associated with said destination is provided by said at least one vehicle.

61. (currently amended): The method of providing a transportation service according to claim 59, further comprising, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle, ~~the steps of~~;

transmitting by said at least one vehicle from said portable telephone terminal to said center equipment present-location information at the time of said change and destination information indicating said new destination;

receiving by said center equipment using said communication controller, said new present-location information and said new destination information,

reading from said map-information storage unit by said controller, new map information corresponding to said new present-location information and new destination information;

finding by said controller according to said new map information, a plurality of new routes connecting said new present location and said new destination;

receiving by said ITS information receiver ITS information provided by the ITS, and acquiring said ITS information by said controller;

calculating by said controller according to said acquired ITS information a required driving time for each of said plurality of new routes;

determining by said controller an optimal route from said plurality of new routes, which is a new shortest-time route having the shortest required driving time;

calculating by said controller according to said new map information, a new distance between said new present location and new destination associated with said new shortest-time route;

calculating by said controller according to said service-charge information, a charge for said new shortest-time route; and

generating by said controller information including shortest-time route information indicative of said new shortest-time route, distance information indicative of said new distance,

and charge information indicative of said new charge, and transmitting said information from said communication controller to said at least one vehicle by adding address information of said portable telephone terminal to said generated information.

62. (previously presented): The method of providing a transportation service according to claim 61, wherein said customer pays for a charge indicated by said new charge information, before a transportation service associated with said new destination is provided by said at least one vehicle.

63. (currently amended): ~~A~~The method of providing a transportation service in a system which comprises at least one Global Positioning System (GPS) satellite, a GPS terminal, a portable telephone terminal, a center equipment, and at least one vehicle on which said GPS terminal and portable telephone terminal are mounted, said center equipment having a communication controller, a controller, a map-information storage unit, a preset-charge information storage unit, and an ITS information receiver, said method comprising ~~the steps of~~:

detecting by said GPS terminal its present location according to information for finding a position of a moving object transmitted from said GPS satellite;

transmitting from said portable telephone terminal present-location information on said present location and destination information indicating a destination specified by a customer of said at least one vehicle;

receiving by said communication controller said present-location information and destination information, and reading from said map-information storage unit, under the control of

said controller, map information corresponding to said present-location information and destination information;

finding by said controller according to said read map information, a plurality of routes connecting said present location and destination;

calculating by said controller according to said map information, a distance from said present location to said destination for each of said plurality of routes;

determining by said controller one of optimal routes which is a shortest route having the shortest distance among said plurality of routes;

receiving by said ITS information receiver ITS information provided by the ITS, and acquiring said ITS information by said controller;

calculating by said controller according to said acquired ITS information, a required driving time for each of said plurality of routes;

determining by said controller one of optimal routes which is a shortest-time route having a shortest required driving time among said plurality of routes;

reading from said preset-charge information storage unit under the control of said controller, service-charge information associated with a transportation company;

calculating by said controller according to said service-charge information, a charge for each of said plurality of routes;

determining by said controller one of optimal routes which is a lowest-charge route having a lowest charge among said plurality of routes; and

generating by said controller information including information indicating said shortest-distance route and its distance, information indicating said shortest-time route and its time, and

information indicating said lowest-charge route and its charge, and transmitting said information to said at least one vehicle by adding address information of said portable telephone terminal to said generated information.

64. (previously presented): The method of providing a transportation service according to claim 63, further including a step of selecting by the customer one of said optimal routes before a transportation service associated with said destination is provided by said at least one vehicle, and paying a charge indicated by said charge information on said selected optimal route.

65. (currently amended): The method of providing a transportation service according to claim 64, further comprising, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle, ~~the steps of~~;

transmitting by said at least one vehicle from said portable telephone terminal to said center equipment present-location information at the time of said change and destination information indicating said new destination;

receiving by said center equipment using said communication controller, said new present-location information and said new destination information,

reading from said map-information storage unit by said controller, new map information corresponding to said new present-location information and new destination information;

finding by said controller according to said new map information, a plurality of new routes connecting said new present location and said new destination;

calculating by said controller according to said new map information a distance from said new present location to said new destination for each of said optimal routes;

determining by said controller a new route as one of optimal routes which is a shortest route having the shortest distance among said plurality of routes;

acquiring by said controller new ITS information from said ITS information receiver;

calculating by said controller according to said acquired ITS information a required driving time for each of said plurality of routes;

determining by said controller a new route as one of optimal routes, which is a shortest-time route among said plurality of routes having the shortest required driving time;

calculating by said controller according to said service-charge information a charge for each of said plurality of routes;

determining by said controller a new route as one of optimal routes, which is a lowest-charge route among said plurality of routes having the lowest charge; and

generating by said controller information including new shortest-distance route information indicating said shortest-distance route, new shortest-time route information indicating said new shortest-time route, and new lowest-charge route information indicating said lowest-charge route, and transmitting said information to said at least one vehicle by adding address information of said portable telephone terminal to said generated information.

66. (previously presented): The method of providing a transportation service according to claim 65, further including a step of selecting by the customer one of said new optimal routes before a transportation service associated with said new destination is provided by said at least

one vehicle, and paying a charge indicated by said charge information on said selected optimal route.

67. (previously presented): The method of providing a transportation service according to claim 62, wherein if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle, said controller calculates a first charge for a route from said new present location to said destination according to said map information, to said ITS information, and to said service-charge information, calculates a second charge for a route from said new present location to said new destination according to said new map information, to said new ITS information, and to said service-charge information, subtracts said second charge from said first charge, and adds said second charge to said subtraction result to calculate said new charge.

68. (previously presented): The method of providing a transportation service according to claim 67, wherein said controller calculates a balance between said first charge and said new charge, and transmits to said at least one vehicle information on said balance together with information regarding said first charge via said communication controller.

69. (previously presented): The method of providing a transportation service according to claim 66, wherein, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle, said controller calculates a first charge for a route from said new present location to said destination according to said map information, to said ITS

information, and to said service-charge information, calculates a second charge for a route from said new present location to said new destination according to said new map information, to said new ITS information, and to said service-charge information, subtracts said second charge from said first charge, and adds said second charge to said subtraction result to calculate said new charge.

70. (previously presented): The method of providing a transportation service according to claim 69, wherein said controller calculates a balance between said first charge and said new charge, and transmits to said at least one vehicle information on said balance together with information regarding said first charge via said communication controller.

71. (previously presented): The method of providing a transportation service according to claim 59, wherein said at least one vehicle receives by said portable telephone terminal information transmitted from said center equipment, reads from said map-information storage unit of said GPS terminal, under the control of a controller of said GPS terminal, map information corresponding to said optimal route included in said received information, displays on an image display said map information on which said optimal route is superposed, and displays a distance from said present location to said destination associated with said optimal route, a required driving time of said at least one vehicle associated with said optimal route, and a charge for said optimal route, included in said information sent from said center equipment.

72. (previously presented): The method of providing a transportation service according to claim 63, wherein said at least one vehicle receives by said portable telephone terminal information transmitted from said center equipment, reads from said map-information storage unit of said GPS terminal, under the control of a controller of said GPS terminal, map information corresponding to said optimal route included in said received information, displays on an image display said map information on which said optimal route is superposed, and displays a distance from said present location to said destination associated with said respective optimal routes, a required driving time of said at least one vehicle associated with said respective optimal routes, and charges for said respective optimal routes, included in said information sent from said center equipment.

73. (previously presented): The method of providing a transportation service according to claim 59, wherein, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle, said at least one vehicle receives by said portable telephone terminal new information sent from said center equipment, reads from said map-information storage unit of said GPS terminal, under the control of a controller of said GPS terminal, new map information corresponding to said new optimal route included in said new information received from said center equipment, displays on an image display said new map information on which said new optimal route is superposed, and displays a distance from said new present location to said new destination associated with said new optimal route, a required driving time of said at least one vehicle associated with said new optimal route, and a charge for said new optimal route, included in said new information.

74. (previously presented): The method of providing a transportation service according to claim 63, wherein, if the customer changes the destination to a new destination when a service is being provided by said at least one vehicle, said at least one vehicle receives by said portable telephone terminal new information sent from said center equipment, reads from said map-information storage unit of said GPS terminal, under the control of a controller of said GPS terminal, new map information corresponding to said respective new optimal routes included in said new information received from said center equipment, displays on an image display said new map information on which said respective new optimal routes is superposed, and displays a distance from said new present location to said new destination associated with said respective new optimal routes, a required driving time of said at least one vehicle associated with said respective new optimal routes, and charges for said respective new optimal routes, included in said new information.

75. (previously presented): The method of providing a transportation service according to claim 73, wherein said center equipment administers information obtained for said optimal route for every at least one vehicle.

76. (previously presented): The method of providing a transportation service according to claim 74, wherein said center equipment administers information obtained for said new optimal route for every at least one vehicle.

77. (previously presented): The method of providing a transportation service according to claim 73, wherein, for every at least one vehicle, said center equipment administers said information obtained with respect to said respective optimal routes, which has been obtained for an optimal route selected from among said optimal routes by the customer.

78. (previously presented): The method of providing a transportation service according to claim 74, wherein, for every at least one vehicle, said center equipment administers said information obtained with respect to said respective new optimal routes, which has been obtained for an optimal route selected from among said new optimal routes by the customer.

79-84. (canceled).